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REMARKS

Claims 1 – 13 and 33 – 40 are pending in the present application. Claim 1 has been amended, Claims 4, 7-9, 13, and 33-40 have been withdrawn, leaving Claims 1 – 3, 5, 6 and 10 – 12 for consideration upon entry of the present amendment. No new matter has been added by the amendment. Reconsideration and allowance of the Claims is respectfully requested in view of the foregoing amendment and the following remarks.

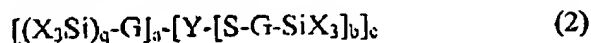
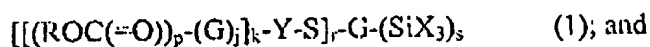
Claim Rejections Under 35 U. S. C. §102(b)

Claims 1 – 3, 5, 6 and 10 – 12 are rejected under 35 U. S. C. § 102 (b) as allegedly being anticipated by U.S. Patent No. 4,152,347 to Pietka et al. (Pietka) (Office Action dated 04/22/04, page 3, Office Action dated 11/17/04 page 3).

In making the rejection, the Examiner has stated “[i]n Col. 5, Pietka teach the claimed blocked mercaptosilanes (1 or 2) where $p = 0$, $j = 1$, $k = 1$, the first $G = C_2H_5$, Y is $P(=O)$ or $P(=S)$, the second G may be variety of moieties such as substituted phenyl and substitute alkyl groups and X is OR.” (Office action dated 04/22/04, page 4)

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988).

Claim 1, as presently amended, is directed to a blocked mercaptosilane selected from the group consisting of



wherein i) for structures (1) and (2), Y is a polyvalent species $(Q)_zA(=E)$ selected from the group consisting of $-C(=NR)-$; $-SC(=NR)-$; $-SC(=O)-$; $-S(=O)-$; $-S(=O)_2-$; $-OS(=O)_2-$; $(-NR)S(=O)_2-$; $-SS(=O)-$; $-OS(=O)-$; $(-NR)S(=O)-$; $-SS(=O)_2-$; $(-NR)_2P(=O)-$; $(-NR)(-S)P(=O)-$; $(-O)(-NR)P(=O)-$; $(-NR)P(=O)-$; $(-NR)_2P(=S)-$; $(-NR)(-S)P(=S)-$; $(-O)(-NR)P(=S)-$; and $(-NR)P(=S)-$;

ii) for structure (1), Y is a polyvalent species $(Q)_zA(=E)$ selected from the group consisting of $(-S)P(=O)-$; $-P(=O)(-)_2$; $(-S)P(=S)-$; $-P(=S)(-)_2$; $(-O)P(=O)-$; and $(-O)P(=S)-$; wherein the atom A , attached to unsaturated heteroatom E is attached to the sulfur which in turn is linked via a group G to the silicon atom; each R is chosen

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independently from hydrogen, straight, cyclic, or branched alkyl that may or may not contain unsaturation, alkenyl groups, aryl groups, and aralkyl groups, with each R containing from 1 to 18 carbon atoms; each G is independently a monovalent or polyvalent group derived by substitution of alkyl, alkenyl, aryl, or aralkyl wherein G can contain from 1 to 18 carbon atoms, and if G is univalent, G can be a hydrogen atom; X is independently selected from the group consisting of -Cl, -Br, RO-, RC(=O)O-, R₂C=NO-, R₂NO-, R₂N-, -R, and -(OSiR₂)(OSiR₃) wherein each R is as above and at least one X is not -R; p is 0 to 5; r is 1 to 3; z is 0 to 2; q is 0 to 6; a is 0 to 7; b is 1 to 3; j is 0 to 1, but it may be 0 only if p is 1; c is 1 to 6; t is 0 to 5; s is 1 to 3; k is 1 to 2; with the provisos that (I) if A is carbon, sulfur, or sulfonyl, then (i) a + b is 2 and (ii) k is 1; (II) if A is phosphorus, then a + b is 3 unless both (i) c is greater than 1 and (ii) b is 1, in which case a is c + 1; and (III) if A is phosphorus, then k is 2.

Pletka teaches sulfur and phosphorous containing organosilicon compounds of the formula $[R_n^1(R^2O)_{3-n}-Si-Alk-S]_xZ$ in which Z has the meanings $\equiv PO$, $\equiv PS$, $\equiv P$, $\equiv PR$, $--PR_2$, $--P(OR)_2$, $\equiv P(OR)$, $--PO(OR)_2$, $--PS(OR)_2$, $\equiv PO(OR)$ or $\equiv PS(OR)$. (See Col. 1, ll. 1-16) According to the general structure, therefore, the compounds containing a PO or PS moiety (i.e. P=O or P=S) have the phosphorus either directly bonded to a sulfur atom or an oxygen atom, not a carbon. Finally, a bond between a phosphorus atom, whether P, P=O, or P=S, to a nitrogen atom is not disclosed.

The Applicants respectfully argue that Pletka fails to teach or suggest all the limitations found in Claim 1. For instance, Pletka does not teach a blocked mercaptosilane according to structures (1) or (2) wherein Y contains an imino moiety (e.g. -C(=NR)- moiety). Therefore, Pletka fails to teach or suggest blocked mercapto silanes according to structures (1) or (2) wherein Y is -C(=NR)- or -SC(=NR)-.

Secondly, Pletka fails to teach or suggest a blocked mercaptosilane wherein Y contains an (S=O) moiety (e.g. thiosulfonate, thiosulfate ester, thiosulfinate, etc.) Therefore, Pletka fails to teach or suggest blocked mercapto silanes according to structures (1) or (2) wherein Y is -S(=O)-; -S(=O)₂-; -OS(=O)₂-; (-NR)S(=O)₂-; -SS(=O)-; -OS(=O)-; (-NR)S(=O)-; or -SS(=O)₂-.

Thirdly, Pletka fails to teach or suggest a blocked mercaptosilane wherein Y contains an -S(C=O)- moiety (e.g., a thiocarboxylate ester). Therefore, Pletka fails to

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teach or suggest blocked mercapto silanes according to structures (1) or (2) wherein Y is $-SC(=O)-$.

Fourthly, Pletka fails to teach or suggest a blocked mercaptosilane wherein Y contains an $(P=O)-N-$ moiety (e.g., phosphamate esters). Therefore, Pletka fails to teach or suggest blocked mercapto silanes according to structures (1) or (2) wherein Y is $(-NR)_2P(=O)-$; $(-NR)(-S)P(=O)-$; $(-O)(-NR)P(=O)-$; $(-NR)P(=O)-$; $(-NR)_2P(=S)-$; $(-NR)(-S)P(=S)-$; $(-O)(-NR)P(=S)-$; or $(-NR)P(=S)-$.

Finally, Pletka fails to teach or suggest a blocked mercaptosilane wherein Y contains an $(P=O)-C-$ or a $(P=S)-C-$ moiety (i.e., no carbon covalently bonded directly to the phosphorus of a $(P=O)$ or a $(P=S)$ group). As stated in the proviso for claim 1, "if A is phosphorus, then k is 2." Therefore, structure (1) of claim 1 requires a carbon atom to be bonded directly to the phosphorus of a $(P=O)$ or $(P=S)$ group, either through G or from $RO(C=O)$. Therefore, Pletka fails to teach or suggest blocked mercapto silanes according to structure (1) wherein Y is $(-S)P(=O)-$; $-P(=O)(-)_2$; $(-S)P(=S)-$; $-P(=S)(-)_2$; $(-O)P(=O)-$; or $(-O)P(=S)-$ as these all result in a carbon atom directly bonded to the phosphorus atom of a $(P=O)$ or $(P=S)$ group.

As Pletka fails to teach or suggest all of the claim limitations of claim 1, the claim has not been rendered anticipated. Claims 2 – 3, 5, 6 and 10 – 12 all ultimately depend from independent claim 1 and are also not anticipated by the reference. Accordingly, the Applicants respectfully request reconsideration and removal of the rejections.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

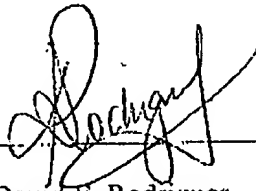
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If there are any additional charges with respect to this amendment or otherwise,
please charge them to Deposit Account No. 07-0888.

Respectfully submitted,

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